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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/382,834	08/25/1999	BRIAN SAMUEL BEAMAN	YO993-028BX	5735

7590 , 05/31/2007  
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EXAMINER
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NGUYEN, VINH P

ART UNIT	PAPER NUMBER
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2829

MAIL DATE	DELIVERY MODE
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05/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/382,834

Applicant(s)

BEAMAN ET AL.

Examiner

VINH P. NGUYEN

Art Unit

2829

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-88 is/are pending in the application.
- 4a) Of the above claim(s) 49 and 60-87 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-48, 50-59, 88 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2829

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/16/05 has been entered.
2. It appears that the limitations of claims 78-82 are drawn to a structure of an interposer which has similar limitations as withdrawn claims 49,60-77 and 83-87, therefore these claims are also withdrawn from consideration.
3. Claims 29-48,50-59 and 88 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 29, it is unclear whether "electronic device" and "electronic component" are the same. The "the electronic component" and "the electronic components" have not been recited previously, therefore this term is indefinite.. Should "component" and "components" be "device" and "devices".

In claims 33-34,36,37,42-43 it is unclear whether "electronic device" and "electronic component" are the same. The term "the electronic component" has not been recited previously, therefore this term is indefinite. Should "component" be "device".

In claim 36, it appears that the limitation of "the flexible elements further includes a protuberance at an end" is inaccurate. Should "each of the flexible elements further includes a protuberance at an end thereof".

In claim 45, it is unclear what “means for effecting electrical connections between the at least one second substrate and the first substrate” comprises of. Is it shown in any of drawings?

In claim 50, it is unclear how “plurality of said plurality of the flexible electrical contact elements (264,260) are interrelated and associated with the flexible contact elements making contact with the electronic device ,printed circuit board, a packaging substrate ,as recited in claims 29,33,34,36,37,42,43. It is noted that The second substrates (236) is not the same as the second substrate (54).

In claim 51,”said second substrates” has no antecedent basis.

In claim 52, it is unclear how a plurality of said second substrates (236) are interrelated and associated with the second substrate as recited in claims 29,33,34,36-37,42-43. The second substrates (236) is not the same as the second substrate (54).

The dependent claims not specifically address share the same indefiniteness as they depend from objected base claims.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 29,32,34-35,37,39 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Bright et al. (Pat # 4,354,718).

As to claims 29, 34, 37, 54, Bright et al disclose an apparatus as shown in figure 5 having a first substrate (14) corresponding to an area of the electronic device to be probed (18) and the substrate having a first front surface, a second substrate (12) mounted and connected to the front surface (top surface) of the first substrate (14) and having a plurality of flexible contact elements/wires (64) in original shapes. According to Bright et al, when the electronic device (18) is pushed down, the leads (42) of the electronic device (18) make contact with the flexible contacts (64)/wires and these flexible contacts flex and wipe the surfaces of the electronic device (18) (an area of the lead "64"/wires in which the flexible contacts wipe) and these flexible contacts (64)/wires substantially compliantly respond when the flexible contact elements are withdrawn from contacting the electronic device (18). It is noted that the electronic device (18) is DIP and this is a packaging substrate.

As to claim 32, the area (an area of the lead "64"/wires in which the flexible contacts wipe) is a portion of a surface area of the electronic device (18).

As to claim 35, the flexible contact elements (64) are considered as "probe elements".

As to claim 39, the first substrate (14) is considered as "a space transformer".

6. Claims 29,32-35,37-39,45,50,53-54,56,59,88 are rejected under 35 U.S.C. 102(b) as being anticipated by Zifcak et al (Pat # 4,793,814) (previously cited on the PTO-1449).

As to claim 29,33-34,37,50,53-54,56,59,88, Zifcak et al disclose an apparatus as shown in figures 3, 5-5A having a first substrate (16) corresponding to an area of the electronic device to be probed (14) and the substrate having a first front surface (top surface), a second substrate (12) mounted and connected to the front surface (top surface) of the first substrate (16) and having a plurality of flexible contact elements/wires (22) in original shapes. According to Zifcak et al, when the electronic device (18) is pushed down, the leads (42) of the electronic device (18) make contact with the flexible contacts /wires (22) and these flexible contacts (22) flex and wipe the surfaces of the electronic device (14) and these flexible contacts (64)/wires substantially compliantly respond when the flexible contact elements are withdrawn from contacting the electronic device (18). It is noted that the electronic device (14) is a printed circuit board and this is considered as a packaging substrate.

As to claim 32, the area of the electronic device (34) is a portion of a surface area of the electronic device (14).

As to claim 35, the flexible contact elements (22) are considered as "probe elements".


As to claims 38 and 45, the first substrate (16) and second substrate (12) of Zifcak et al are electrically connected by electrical connections (36).

As to claim 39, the first substrate (16) is considered as "a space transformer".

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P. NGUYEN whose telephone number is 571-272-1964. The examiner can normally be reached on 6:30AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HA T. NGUYEN can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
VINH P NGUYEN  
Primary Examiner  
Art Unit 2829  
05/24/07